

PATENT Customer No. 22,852 Attorney Docket No. 6832.0017

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No.: 6,905,688))
Inventors:)		Certificate
Craig A. Rosen and William A. Haseltine)		MAR 0 9 2006
Issue Date.: June 14, 2005)		of Correction
For: ALBUMIN FUSION PROTEINS	3		
Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450		03/08/2006 SZEWDIE1 01 FC:1811	00000067 6905688 100.00 OP
Sir:			

REQUEST FOR CERTIFICATE OF CORRECTION

Pursuant to 35 U.S.C. §§ 254 and 255, and 37 C.F.R. §§ 1.322 and 1.323, this is a request for a Certificate of Correction in the above-identified patent. Some of the mistakes identified in the appended Form occurred through the fault of the Patent Office, as clearly disclosed by the records of the application which matured into this patent.

For example, the priority claims to Provisional Application Nos. 60/256,931, filed December 21, 2000; 60/199,384, filed April 25, 2000; and 60/229,358, filed April 12, 2000, were deleted in an Amendment filed June 3, 2004, and a Corrected Filing Receipt reflecting the change was mailed by the PTO on June 21, 82664994 RSWB56 PRIPES SSBB68 BLECHB11 108.89patent was printed with the priority claims in the title page under item (60) and in the first paragraph of the specification.

Moreover, the issued patent reflects the original Sequence Listing filed rather than the Substitute Sequence Listing submitted on May 12, 2004. The Sequence Listing in the attached Certificate of Correction is identical to the Substitute Sequence Listing filed on May 12, 2004, and is also identical to the computer readable copy of the Substitute Sequence Listing also submitted on May 18, 2004. Thus, the correction contains no new matter.

Finally, the issued patent contains an error in the claims due to an Office mistake. The issued claims are based on an Examiner's Amendment mailed with a Notice of Allowance dated February 12, 2004. Claim 4 recited "in vivo biological activity" in the Examiner's Amendment but the patent issued as "in viva biological activity." The Certificate of Correction corrects this typographical error.

Other mistakes identified in the appended Form are of a clerical or typographical nature, or of minor character, and resulted from an error made in good faith by Patentees by failing to bring to the attention of the Examiner the clerical/typographical errors in the claims presented in the Examiner's Amendment of February 12, 2004.

A check in the amount of \$100 (the fee set forth in 37 C.F.R. § 1.20(a)) is attached. Should a check not be appended or should any additional fees be needed, authorization is hereby given to charge any fees due in connection with the filing of this request to Deposit Account No. 06-0916.

Two (2) copies of PTO Form 1050 are appended. The complete Certificate of Correction involves twenty-seven (27) pages. Issuance of the Certificate of Correction containing the correction is earnestly requested.

Please charge any required fees not included herewith to our deposit account

06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: March 7, 2006

Charle E. Van Horn
Reg. No. 40,266

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,905,688

APPLICATION NO.:

09/833,118

ISSUE DATE:

June 14, 2005

INVENTOR(S):

Craig A. Rosen et al.

It is hereby certified that an error or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Title Page

Under item (60) (Related U.S. Application Data) of the title page, delete the text beginning with "Provisional application No. 60/229,358" to and ending "provisional application No. 60/199,384, filed on Apr. 25, 2000."

In the Specification:

Col. 1, line 3, delete the text beginning with "This application" to and ending "in its entirety." in col. 1, line 8.

In the Claims:

Col. 292, lines 36-37, in claim 1(j), delete the text "wherein the brain derived neurotrophic factor protein or fragment thereof,".

Col. 292, line 57, in claim 4, "viva" should read --vivo--.

Col. 294, line 15, in claim 15, delete "any of".

Col. 294, line 17, in claim 16, delete "any of".

In the Sequence Listing:

Delete the Sequence Listing beginning in Col. 263, beginning with the text "<160> NUMBER OF SEQ ID NOS: 35" to and ending "<400> SEQUENCE: 35

Met Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala Leu 1 5 10 15

MAILING ADDRESS OF SENDER

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

Page 1 of 27

MAR 9 LUUO

```
Trp Ala Pro Ala Arg Gly"
in Col. 292 and insert the following Sequence Listing:
      <160> NUMBER OF SEO ID NOS: 45
      <210> 1
      <211> 23
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> primer useful to clone human growth hormone cDNA
      <400> 1
      cccaagaatt cccttatcca ggc
                                                                          23
      <210> 2
      <211> 33
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> primer useful to clone human growth hormone cDNA
      gggaagetta gaagecacag gateeeteea eaq
                                                                          33
      <210> 3
      <211> 16
      <212> DNA
      <213> Artificial Sequence
     <220>
      <221> misc structure
      <223> synthetic oligonucleotide used to join DNA fragments
      with non-cohesive ends.
      <400> 3
     gataaagatt cccaac
                                                                          16
     <210> 4
      <211> 17
      <212> DNA
     <213> Artificial Sequence
     <221> misc_structure
      <223> synthetic oligonucleotide used to join DNA fragments
      with non-cohesive ends.
```

U.S. Patent No. 6,905,688

```
<400> 4
aattgttggg aatcttt
                                                                    17
<210> 5
<211> 17
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA fragments
with non-cohesive ends.
<400> 5
ttaggcttat tcccaac
                                                                    17
<210> 6
<211> 18
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA fragments
with non-cohesive ends.
<400> 6
aattgttggg aataagcc
                                                                    18
<210> 7
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
<221> SITE
<222> 1)..(19)
<223> invertase leader sequence
<220>
<221> SITE
<222> 20) . . (24)
<223> first 5 amino acids of mature human serum albumin
<400> 7
Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys
Ile Ser Ala Asp Ala His Lys Ser
<210> 8
<211> 21
```

U.S. Patent No. 6,905,688

```
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 8
gagatgcaca cctgagtgag g
                                                                   21
<210> 9
<211> 27
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 9
                                                                   27
gatcctgtgg cttcgatgca cacaaga
<210> 10
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 10
ctcttgtgtg catcgaagcc acag
                                                                   24
<210> 11
<211> 30
<212> DNA
<213> Artificial Sequence
<220>
<221> misc structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 11
tgtggaagag cctcagaatt tattcccaac
                                                                   30
<210> 12
<211> 31
<212> DNA
```

U.S. Patent No. 6,905,688

```
<213> Artificial Sequence
c2205
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
aattgttggg aataaattct gaggctcttc c
                                                                   31
<210> 13
<211> 47
<212> DNA
<213> Artificial Sequence
<220>
<221> misc structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 13
                                                                   47
ttaggettag gtggeggtgg atceggeggt ggtggatett teccaac
<210> 14
<211> 48
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 14
aattgttggg aaagatccac caccgccgga tccaccgcca cctaagcc
                                                                   48
<210> 15
<211> 62
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 15
ttaggettag geggtggtgg atetggtgge ggeggatetg gtggeggtgg ateetteeca 60
<210> 16
<211> 63
<212> DNA
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

Page 5 of 27

MAP & Low

```
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 16
aattgttggg aaggatccac cgccaccaga tccgccgcca ccagatccac caccgcctaa 60
<210> 17
<211> 1782
<212> DNA
<213 > Homo sapiens
<220>
<221> CDS
<222> (1)..(1755)
<400> 17
gat gca cac aag agt gag gtt gct cat cgg ttt aaa gat ttg gga gaa
Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu
gaa aat ttc aaa gcc ttg gtg ttg att gcc ttt gct cag tat ctt cag
Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln
cag tgt cca ttt gaa gat cat gta aaa tta gtg aat gaa gta act gaa
Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu
ttt gca aaa aca tgt gtt gct gat gag tca gct gaa aat tgt gac aaa
Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys
tca ctt cat acc ctt ttt gga gac aaa tta tgc aca gtt gca act ctt
                                                                   240
Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu
cgt gaa acc tat ggt gaa atg gct gac tgc tgt gca aaa caa gaa cct
Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro
gag aga aat gaa tgc ttc ttq caa cac aaa qat qac aac cca aac ctc
Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu
            100
ccc cga ttg gtg aga cca gag gtt gat gtg atg tgc act gct ttt cat
Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His
gac aat gaa gag aca ttt ttg aaa aaa tac tta tat gaa att gcc aga
Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg
```

U.S. Patent No. 6,905,688

	130			135			140				
		cct Pro								480	
		gct Ala								528	
		ttg Leu								576	
		aaa Lys 195								624	
		ttc Phe								672	
		gag Glu								720	
		acg Thr								768	
		gac Asp								816	
		ctg Leu 275								864	
		gcc Ala								912	
		gct Ala								960	
		aag Lys								1008	
		cct Pro								1056	
		acc Thr 355								1104	

U.S. Patent No. 6,905,688

					ttc Phe											1152	
					caa Gln 390											1200	
					gcg Ala											1248	
					act Thr											1296	
					tgt Cys											1344	
					tcc Ser											1392	
					agt Ser 470											1440	
					cca Pro											1488	
					ttt Phe											1536	
					gag Glu											1584	
					aaa Lys											1632	
					gat Asp 550											1680	
gct Ala	gac Asp	gat Asp	aag Lys	gag Glu 565	acc Thr	tgc Cys	ttt Phe	gcc Ala	gag Glu 570	gag Glu	ggt Gly	aaa Lys	aaa Lys	ctt Leu 575	gtt Val	1728	
					gcc Ala				taac	atct	ac a	ttta	aaag	gc at	ctcag	1782	

U.S. Patent No. 6,905,688

```
<210> 18
<211> 585
<212> PRT
<213> Homo Sapiens
<400> 18
Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu
Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln
Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu
Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys
Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu
Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro
Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu
Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His
Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg
Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg
Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala
Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser
Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu
Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro
Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys
Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp
Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser
            260
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

Page 9 of 27

Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr 345 Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys 435 Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr 490 Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp 500 505 Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala 520 Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val

MAILING ADDRESS OF SENDER

U.S. Patent No. 6,905,688

```
Ala Ala Ser Gln Ala Ala Leu Gly Leu
            580
<210> 19
<211> 58
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> primer used to generate XhoI and ClaI
site in pPPC0006
<400> 19
gcctcgagaa aagagatgca cacaagagtg aggttgctca tcgatttaaa gatttggg
<210> 20
<211> 59
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> primer used in generation XhoI and ClaI
site in pPPC0006
<400> 20
aatcgatgag caacctcact cttgtgtgca tctcttttct cgaggctcct ggaataagc
<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> primer used in generation XhoI and ClaI
site in pPPC0006
<400> 21
tacaaactta agagtccaat tagc
                                                                   24
<210> 22
<211> 29
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> primer used in generation XhoI and ClaI
site in pPPC0006
```

U.S. Patent No. 6,905,688

```
<400> 22
                                                                   29
cactteteta gagtggttte atatgtett
<210> 23
<211> 60
<212> DNA
<213> Artificial Sequence
<220>
<221> Misc_Structure
<223> Synthetic oligonucleotide used to alter restriction
sites in pPPC0007
aagetgeett aggettataa taaggegege eggeeggeeg titaaactaa gettaattet 60
c210x 24
<211> 60
<212> DNA
<213> Artificial Sequence
<220>
<221> Misc Structure
<223> Synthetic oligonucleotide used to alter restriction
sites in pPPC0007
agaattaagc ttagtttaaa cggccggccg gcgcgcctta ttataagcct aaggcagctt 60
<210> 25
<211> 32
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> forward primer useful for generation of albumin
fusion protein in which the albumin moiety is N-terminal
of the Therapeutic Protein
c2205
<221> misc feature
<222> (18)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (19)
<223> n equals a,t,g, or c
<221> misc feature
<222> (20)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (22)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (23)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (24)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (25)
<223> n equals a,t,g, or c
<221> misc feature
<222> (26)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (27)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (28)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (29)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (31)
<223> n equals a,t,g, or c
```

U.S. Patent No. 6,905,688



```
<220>
<221> misc feature
<222> (32)
<223> n equals a,t,g, or c
aagetgeett aggettannn nnnnnnnnn nn
                                                                   32
<210> 26
<211> 51
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> reverse primer useful for generation of albumin
fusion protein in which the albumin moiety is N-terminal
of the Therapeutic Protein
<220>
<221> misc feature
<222> (37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (42)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
<221> misc feature
<222> (44)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (47)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (49)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (51)
<223> n equals a,t,g, or c
<400> 26
gcgcgcgttt aaacggccgg ccggcgcgcc ttattannnn nnnnnnnnn n
                                                                  51
<210> 27
<211> 33
<212> DNA
<213> Artificial Sequence
<223> forward primer useful for generation of albumin fusion
protein in which the albumin moiety is c-terminal of the
Therapeutic Protein
<221> misc feature
<222> (19)
<223> n equals a,t,g, or c
<220>
```

U.S. Patent No. 6,905,688

18.00

```
<221> misc feature
<222> (20)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (22)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (23)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (24)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (25)
<223> n equals a,t,g, or c
<221> misc feature
<222> (26)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (27)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (28)
<223> n equals a,t,q, or c
<220×
<221> misc feature
<222> (29)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c
<221> misc feature
<222> (31)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (32)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c
<400> 27
aggagcgtcg acaaaagann nnnnnnnnnn nnn
                                                                   33
<210> 28
<211> 52
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> reverse primer useful for generation of albumin
fusion protein in which the albumin moiety is c-terminal of
the Therapeutic Protein
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (40)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (42)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

1AR 5 2006

```
<220>
<221> misc feature
<222> (44)
<223> n equals a,t,g, or c
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<221> misc feature
<222> (47)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c
<221> misc feature
<222> (49)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (51)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (52)
<223> n equals a,t,g, or c
<400> 28
ctttaaatcg atgagcaacc tcactcttgt gtgcatcnnn nnnnnnnnn nn
                                                                   52
<210> 29
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
<221> signal
<223> signal peptide of natural human serum albumin protein
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

Contra

```
<400× 29
Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
 1
Tyr Ser Arg Ser Leu Asp Lys Arg
<210> 30
<211> 114
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> forward primer useful for generation of PC4:HSA
albumin fusion VECTOR
<220>
<221> misc_feature
<222> (5)..(10)
<223> BamHI retsriction site
<220>
<221> misc_feature
<222> (11)..(16)
<223> Hind III retsriction site
<220>
<221> misc feature
<222> (17)..(27)
<223> Kozak sequence
<220>
<221> misc feature
<222> (25)..(97)
<223> cds natural signal sequence of human serum albumin
<220>
<221> misc_feature
<222> (75) . . (81)
<223> XhoI restriction site
<220>
<221> misc_feature
<222> (98)..(114)
<223> cds first six amino acids of human serum albumin
<400> 30
tcagggatcc aagcttccgc caccatgaag tgggtaacct ttatttccct tctttttctc 60
tttagctcgg cttactcgag gggtgtgttt cgtcgagatg cacacaagag tgag
                                                                   114
<210> 31
<211> 43
<212> DNA
<213> Artificial Sequence
```

U.S. Patent No. 6,905,688

```
<220>
<221> primer_bind
<223> reverse primer useful for generation of
PC4:HSA albumin fusion VECTOR
<220>
<221> misc_feature
<222> (6)..(11)
<223> Asp718 restriction site
<220>
<221> misc_feature
<222> (12) ... (17)
<223> EcoRI restriction site
<220>
<221> misc_feature
<222> (15)..(17)
<223> reverse complement of stop codon
<220>
<221> misc_feature
<222> (18) ... (25)
<223> AscI restriction site
<221> misc_feature
<222> (18) . . (43)
<223> reverse complement of DNA sequence encoding last 9 amino acids
<400> 31
gcagcggtac cgaattcggc gcgccttata agcctaaggc agc
                                                                    43
<210> 32
<211> 46
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> forward primer useful for inserting Therapeutic
protein into pC4:HSA vector
<220>
<221> misc feature
<222> (29)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (30)
<223> n equals a.t.q. or c
<220>
<221> misc feature
```

U.S. Patent No. 6,905,688

```
<222> (31)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (32)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (34)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (35)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (36)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (42)
<223> n equals a,t,g, or c
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

Page 21 of 27

MAR 9 ZUUG

```
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (44)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)
<223> n equals a.t.q. or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<400> 32
ccgccgctcg aggggtgtgt ttcgtcgann nnnnnnnnn nnnnnn
                                                                   46
<210> 33
<211> 55
<212> DNA
<213> Artificial Sequence
<221> primer_bind
<223> reverse primer useful for inserting Therapeutic
protein into pC4:HSA vector
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,g, or c
<220×
<221> misc feature
<222> (40)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<2225 (41)
<223> n equals a,t,g, or c
<221> misc feature
<222> (42)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (44)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (47)
<223> n equals a,t,g, or c
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (49)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (51)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (52)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (53)
<223> n equals a,t,g, or c
```

U.S. Patent No. 6,905,688

```
<220×
 <221> misc feature
 <222> (54)
 <223> n equals a,t,g, or c
 <221> misc feature
 <222> (55)
 <223> n equals a,t,g, or c
 <400> 33
 agtoccateg atgageaacc teactettgt gtgeatennn nnnnnnnnnn nnnnn
 <210> 34
 <211> 17
 <212> PRT
 <213> Artificial Sequence
 <220>
 <221> signal
 <223> Stanniocalcin signal peptide
 <400> 34
 Met Leu Gln Asn Ser Ala Val Leu Leu Leu Leu Val Ile Ser Ala Ser
                  5
                                      10
 Ala
 <210> 35
 <211> 22
 <212> PRT
 <213> Artificial Sequence
 <220>
<221> signal
 <223> Synthetic signal peptide
 <400> 35
 Met Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala Leu
 Trp Ala Pro Ala Arg Gly
              20
 <210> 36
 <211> 733
 <212> DNA
 <213> Homo sapiens
 <400> 36
 gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
                                                                        60
                                                                       120
 aattegaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
 teteceggae teetgaggte acatgegtgg tggtggaegt aageeaegaa gaeeetgagg
                                                                       180
 tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                       240
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

MAR 9 2006

```
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
                                                                            300
      ggctgaatgg caaggagtac aagtgcaagg totocaacaa agccotocca acccocatog
                                                                            360
      agaaaaccat ctccaaagcc aaaqggcagc cccgaqaacc acaqqtqtac accctqcccc
                                                                            420
      catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctgqtc aaaggcttct
                                                                            480
      atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
                                                                            540
      ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                            600
      acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                            660
      acaaccacta cacgcagaag agcetetece tgteteeggg taaatgagtg egacggeege
                                                                            720
      gactctagag gat
                                                                            733
      <210> 37
      <211> 5
      <212> PRT
      <213> Artificial sequence
      <220>
      <221> misc structure
      <223> membrane proximal motif of class 1 cytokine receptors
      <220>
      <221> misc feature
      <222> (3)
      <223> Xaa equals any
      <400> 37
      Trp Ser Xaa Trp Ser
      <210> 38
      <211> 86
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> forward primer useful for generation of a synthetic gamma activation site
(GAS) containing promoter element
      <400> 38
      gegeetegag attteccega aatetagatt teecegaaat gatttecceg aaatgattte
                                                                              60
      cccgaaatat ctgccatctc aattag
                                                                              86
      <210> 39
      <211> 27
      <212> DNA
```

U.S. Patent No. 6,905,688

```
<213> Artificial Sequence
      <220>
      <221> primer_bind
      <223> reverse primer useful for generation of a synthetic gamma activation site
(GAS) containing promoter element
      <400> 39
      gcggcaagct ttttgcaaag cctaggc
                                                                                     27
      <210> 40
      <211> 271
      <212> DNA
      <213> Artificial Sequence
      <221> misc feature
      <223> Synthetic GAS-SV40 promoter sequence
      <400> 40
      ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
                                                                              60
      aaatatetge cateteaatt agteageaac catagteeeg eecetaacte egeceateee
                                                                            120
      gecectaact cogeceagtt cogeceatte tecgececat ggetgactaa tttttttat
                                                                            180
      ttatgcagag geogaggeeg ceteggeete tgagetatte cagaagtagt gaggaggett
                                                                            240
      ttttggaggc ctaggctttt gcaaaaagct t
                                                                            271
      <210> 41
      <211 > 32
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer_bind
      <223> primer useful for generation of a EGR/SEAP reporter construct
      <400> 41
      gegetegagg gatgacageg atagaacece gg
                                                                              32
      <210> 42
      <211> 31
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> primer useful for generation of a EGR/SEAP reporter construct
      <400> 42
     gegaagette gegaeteece ggateegeet e
                                                                            31
      <210> 43
      <211> 12
      <212> DNA
```

U.S. Patent No. 6,905,688

```
<213> Artificial Sequence
      <220>
      <221> misc_binding
      <223> NF-KB binding site
      <400> 43
      ggggactttc cc
                                                                          12
      <210> 44
      <211> 73
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> forward primer useful for generation of a vector containing the NF-KB
promoter element
      <400> 44
      goggeotega ggggaettte coggggaett teoggggaet ttecateetg
                                                                          60
      ccatctcaat tag
                                                                          73
      <210> 45
      <211> 256
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> misc feature
      <223> Synthetic NF-KB/SV40 promoter
      <400> 45
      ctcgagggga ctttcccggg gactttccgg ggactttcca tctgccatct
                                                                          60
      caattagtca gcaaccatag tecegeeet aacteegeee ateeegeee taacteegee
                                                                          120
      cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga
                                                                          180
      ggccgcctcg gcctctgagc tattccagaa qtaqtqaqqa qqcttttttq qaqqcctaqq
                                                                          240
      cttttgcaaa aagctt
                                                                          256
```

U.S. Patent No. 6,905,688

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

6,905,688

APPLICATION NO.:

09/833.118

ISSUE DATE:

June 14, 2005

INVENTOR(S):

Craig A. Rosen et al.

It is hereby certified that an error or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Title Page

Under item (60) (Related U.S. Application Data) of the title page, delete the text beginning with "Provisional application No. 60/229,358" to and ending "provisional application No. 60/199,384, filed on Apr. 25, 2000."

In the Specification:

Col. 1, line 3, delete the text beginning with "This application" to and ending "in its entirety." in col. 1, line 8.

In the Claims:

Col. 292, lines 36-37, in claim 1(j), delete the text "wherein the brain derived neurotrophic factor protein or fragment thereof,".

Col. 292, line 57, in claim 4, "viva" should read --vivo--.

Col. 294, line 15, in claim 15, delete "any of".

Col. 294, line 17, in claim 16, delete "any of".

In the Sequence Listing:

Delete the Sequence Listing beginning in Col. 263, beginning with the text "<160> NUMBER OF SEQ ID NOS: 35" to and ending "<400> SEQUENCE: 35

Met Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala Leu

MAILING ADDRESS OF SENDER

U.S. Patent No. 6,905,688

```
Trp Ala Pro Ala Arg Gly"
in Col. 292 and insert the following Sequence Listing:
      <160> NUMBER OF SEO ID NOS: 45
      <210> 1
      <211> 23
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer_bind
      <223> primer useful to clone human growth hormone cDNA
      <400> 1
      cccaagaatt cccttatcca ggc
      <210> 2
      <211> 33
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> primer useful to clone human growth hormone cDNA
      <400> 2
     gggaagctta gaagccacag gatccctcca cag
     <210> 3
     <211> 16
     <212> DNA
     <213> Artificial Sequence
     <220>
     <221> misc structure
     <223> synthetic oligonucleotide used to join DNA fragments
     with non-cohesive ends.
     <400> 3
     gataaagatt cccaac
                                                                         16
     <210> 4
     <211> 17
     <212> DNA
     <213> Artificial Sequence
     <220>
     <221> misc_structure
     <223> synthetic oligonucleotide used to join DNA fragments
     with non-cohesive ends.
```

U.S. Patent No. 6,905,688

```
<400> 4
aattgttggg aatcttt
                                                                     17
<210> 5
<211> 17
 <212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA fragments
with non-cohesive ends.
<400> 5
ttaggcttat tcccaac
                                                                     17
<210> 6
<211> 18
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA fragments
with non-cohesive ends.
<400> 6
aattgttggg aataagcc
                                                                    18
<210> 7
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
<221> SITE
<222> 1)..(19)
<223> invertase leader sequence
<220>
<221> SITE
<222> 20) . . (24)
<223> first 5 amino acids of mature human serum albumin
<400> 7
Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys
Ile Ser Ala Asp Ala His Lys Ser
<210> 8
<211> 21
```

U.S. Patent No. 6,905,688

```
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 8
gagatgcaca cctgagtgag g
                                                                    21
<210> 9
<211> 27
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 9
gatcctgtgg cttcgatgca cacaaga
<210> 10
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 10
ctcttgtgtg catcgaagcc acag
                                                                    24
<210> 11
<211> 30
<212> DNA
<213> Artificial Sequence
<220>
<221> misc structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 11
tgtggaagag cctcagaatt tattcccaac
                                                                    30
<210> 12
<211> 31
<212> DNA
```

U.S. Patent No. 6,905,688

```
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 12
aattgttggg aataaattct gaggctcttc c
                                                                    31
<210> 13
<211> 47
<212> DNA
<213> Artificial Sequence
<220>
<221> misc structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 13
ttaggcttag gtggcggtgg atccggcggt ggtggatctt tcccaac
                                                                    47
<210> 14
<211> 48
<212> DNA
<213> Artificial Sequence
<220>
<221> misc structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
aattgttggg aaagatccac caccgccgga tccaccgcca cctaagcc
<210> 15
<211> 62
<212> DNA
<213> Artificial Sequence
<220>
<221> misc structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 15
ttaggcttag gcggtggtgg atcttggtggc ggcggatctg gtggcggtgg atccttccca 60
<210> 16
<211> 63
<212> DNA
```

U.S. Patent No. 6,905,688

```
<213> Artificial Sequence
<220>
<221> misc_structure
<223> synthetic oligonucleotide used to join DNA
fragments with non-cohesive ends.
<400> 16
aattgttggg aaggateeac egecaceaga teegeegeea eeagateeac cacegeetaa 60
<210> 17
<211> 1782
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> (1)..(1755)
<400> 17
gat gca cac aag agt gag gtt gct cat cgg ttt aaa gat ttg gga gaa
Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu
                                      10
gaa aat ttc aaa gcc ttg gtg ttg att gcc ttt gct cag tat ctt cag
                                                                   96
Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln
             20
cag tgt cca ttt gaa gat cat gta aaa tta gtg aat gaa gta act gaa
                                                                   144
Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu
                             40
ttt gca aaa aca tgt gtt gct gat gag tca gct gaa aat tgt gac aaa
                                                                   192
Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys
tca ctt cat acc ctt ttt gga gac aaa tta tgc aca gtt gca act ctt
                                                                   240
Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu
cgt gaa acc tat ggt gaa atg gct gac tgc tgt gca aaa caa gaa cct
                                                                   288
Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro
gag aga aat gaa tgc ttc ttg caa cac aaa gat gac aac cca aac ctc
Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu
                                105
ccc cga ttg gtg aga cca gag gtt gat gtg atg tgc act gct ttt cat
                                                                   384
Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His
gac aat gaa gag aca ttt ttg aaa aaa tac tta tat gaa att gcc aga
Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg
```

U.S. Patent No. 6,905,688

		130	7				135					140							
	aga Arg 145	cat His	cct Pro	tac Tyr	ttt Phe	tat Tyr 150	gcc Ala	ccg Pro	gaa Glu	ctc Leu	ctt Leu 155	ttc Phe	ttt Phe	gct	aaa Lys	agg Arg 160	480		
			gct Ala														528	1	
	tgc Cys	ctg Leu	ttg Leu	cca Pro 180	aag Lys	ctc Leu	gat Asp	gaa Glu	ctt Leu 185	cgg Arg	gat Asp	gaa Glu	999 Gly	aag Lys 190	gct Ala	tcg Ser	576		
	tct Ser	gcc Ala	aaa Lys 195	cag Gln	aga Arg	ctc Leu	aaa Lys	tgt Cys 200	gcc Ala	agt Ser	ctc Leu	caa Gln	aaa Lys 205	ttt Phe	gga Gly	gaa Glu	624		
			ttc Phe														672		
			gag Glu														720		
			acg Thr														768		
			gac Asp														8,16		
			ctg Leu 275														864		
	tgc Cys	att Ile 290	gcc Ala	gaa Glu	gtg Val	gaa Glu	aat Asn 295	gat Asp	gag Glu	atg Met	cct Pro	gct Ala 300	gac Asp	ttg Leu	cct Pro	tca Ser	912		
			gct Ala														960		
	gag Glu		aag Lys														1008		
	agg Arg																1056		
	tat Tyr	Glu										Āla					1104		

U.S. Patent No. 6,905,688

						gat Asp 375										1152	
															gag	1200	
	Asn	Leu	Ile	Lys		Asn	Cys	Glu	Leu		Glu	Gln	Leu	Gly			
385					390					395					400		
tac	aaa	ttc	cag	aat	gcg	cta	tta	gtt	cgt	tac	acc	aag	aaa	gta	ccc	1248	
Tyr	Lys	Phe	Gln		Ala	Leu	Leu	Val		Tyr	Thr	Lys	Lys		Pro		
				405					410					415			
caa	gtg	tca	act	cca	act	ctt	qta	qaq	qtc	tca	aga	aac	cta	qqa	aaa	1296	
			Thr			Leu		Glu					Leu				
			420					425					430				
gtg	qqc	age	aaa	tat	tat	aaa	cat	cct	qaa	qca	aaa	aga	atq	ccc	tat	1344	
						Lys											
		435					440					445					
gca	gaa	gac	tat	cta	tcc	gtg	atc	cta	aac	cag	tta	tat	at a	tta	cat	1392	
						Val											
	450					455					460						
gag	aaa	acq	cca	ota	agt	gac	ада	atc	aca		tac	tac	aca	gag	tcc	1440	
						Asp											
465					470					475					480		
tta	at.a	aac	agg	cga	cca	tgc	ete	t.ca	act	cta	gaa	atc	gat.	gaa	aca	1488	
						Сув											
				485					490					495			
tac	gt.t.	ccc	aaa	gag	rrr	aat	act	gaa	aca	ttc	acc	ttc	cat	gca	gat.	1536	
						Asn											
			500					505					510				
ata	tqc	aca	ctt	tct	gag	aag	gag	aga	caa	atc	aaq	aaa	caa	act	qca	1584	
						Lys											
		515					520					525					
ctt	qtt	gag	ctt	ata	aaa	cac	aaq	ccc	aaq	aca	aca	aaa	aaa	caa	ctq	1632	
	Val					His											
	530					535					540						-
aaa	act.	att	atq	gat	gat	ttc	gca	act	nnn	gta	gag	aag	tac	tac	aaq	1680	
						Phe											
545					550					555					560		
act.	gac	gat	aaq	gag	acc	tgc	tft	acc	gag	gag	aat	aaa	222	ctt	at t	1728	
						Cys										2,20	
				565					570					575			
act	aca.	act	C22	act	acc	++=	aac	++=	+ 227	etct		.+++=		rc at	ctcag	1782	
						Leu			cade		6		Judy	,	Jucuy		
			580				-	585									

U.S. Patent No. 6,905,688

```
<210> 18
<211> 585
 <212> PRT
<213> Homo Sapiens
<400> 18
Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu
Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln
Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu
Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys
Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu
Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro
Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu
                                105
Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His
Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg
Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg
Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala
Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser
Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu
        195
                            200
Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro
Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys
                    230
Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp
Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

MAR 9 ZUUb

Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His 280 Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala 315 Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser 465 Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp 500 505 Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala 520 Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val

MAILING ADDRESS OF SENDER

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

Page 10 of 27



```
Ala Ala Ser Gln Ala Ala Leu Gly Leu
<210> 19
<211> 58
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> primer used to generate XhoI and ClaI
site in pPPC0006
<400> 19
gcctcgagaa aagagatgca cacaagagtg aggttgctca tcgatttaaa gatttggg
                                                                    5.8
<210> 20
<211> 59
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> primer used in generation XhoI and ClaI
site in pPPC0006
<400> 20
aatcgatgag caacctcact cttgtgtgca tctcttttct cgaggctcct ggaataagc
<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> primer used in generation XhoI and ClaI
site in pPPC0006
<400> 21
tacaaactta agagtccaat tagc
                                                                   24
<210> 22
<211> 29
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> primer used in generation XhoI and ClaI
site in pPPC0006
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

MAR 9 ZUUD

```
<400> 22
cactteteta gagtggttte atatgtett
                                                                    29
<210> 23
<211> 60
<212> DNA
<213> Artificial Sequence
<220>
<221> Misc_Structure
<223> Synthetic oligonucleotide used to alter restriction
sites in pPPC0007
<400> 23
aagctgcctt aggcttataa taaggcgcgc cggccggccg tttaaactaa gcttaattct 60
<210> 24
<211> 60
<212> DNA
<213> Artificial Sequence
<220>
<221> Misc_Structure
<223> Synthetic oligonucleotide used to alter restriction
sites in pPPC0007
<400> 24
agaattaagc ttagtttaaa cggccggccg gcgcgcctta ttataagcct aaggcagctt 60
<210> 25
<211> 32
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> forward primer useful for generation of albumin
fusion protein in which the albumin moiety is N-terminal
of the Therapeutic Protein
<220>
<221> misc feature
<222> (18)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (19)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (20)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (22)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (23)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (24)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (25)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (26)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (27)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (28)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (29)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (31)
<223> n equals a,t,g, or c
```

U.S. Patent No. 6,905,688

```
<220>
 <221> misc feature
 <222> (32)
 <223> n equals a,t,g, or c
<400> 25
aagctgcctt aggcttannn nnnnnnnnn nn
<210> 26
<211> 51
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> reverse primer useful for generation of albumin
fusion protein in which the albumin moiety is N-terminal
of the Therapeutic Protein
<220>
<221> misc feature
<222> (37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (42)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (44)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (47)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c
<221> misc feature
<222> (49)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (51)
<223> n equals a,t,g, or c
<400> 26
gcgcgcgttt aaacggccgg ccqqcqcqcc ttattannnn nnnnnnnnnn n
<210> 27
<211> 33
<212> DNA
<213> Artificial Sequence
<223> forward primer useful for generation of albumin fusion
protein in which the albumin moiety is c-terminal of the
Therapeutic Protein
<220>
<221> misc feature
<222> (19)
<223> n equals a,t,g, or c
<220>
```

U.S. Patent No. 6,905,688

```
<221> misc feature
<222> (20)
<223> n equals a,t,g, or c
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (22)
<223> n equals a,t,g, or c
<221> misc feature
<222> (23)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (24)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (25)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (26)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (27)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (28)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (29)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (31)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (32)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c
<400> 27
aggagcgtcg acaaaagann nnnnnnnnnn nnn
                                                                    33
<210> 28
<211> 52
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> reverse primer useful for generation of albumin
fusion protein in which the albumin moiety is c-terminal of
the Therapeutic Protein
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,g, or c
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (42)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

MAR 9 ZUUD

11/11/5

```
<220>
 <221> misc feature
 <222> (44)
 <223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (47)
<223> n equals a,t,g, or c
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (49)
<223> n equals a,t,g, or c -
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (51)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (52)
<223> n equals a,t,g, or c
<400> 28
ctttaaatcg atgagcaacc tcactcttgt gtgcatcnnn nnnnnnnnn nn
                                                                    52
<210> 29
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
<221> signal
<223> signal peptide of natural human serum albumin protein
```

U.S. Patent No. 6,905,688

```
<400> 29
 Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
 Tyr Ser Arg Ser Leu Asp Lys Arg
              20
 <210> 30
 <211> 114
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> primer_bind
 <223> forward primer useful for generation of PC4:HSA
 albumin fusion VECTOR
 <220>
 <221> misc_feature
 <222> (5)..(10)
 <223> BamHI retsriction site
 <220>
 <221> misc_feature
 <222> (11)..(16)
 <223> Hind III retsriction site
<220>
 <221> misc feature
 <222> (17)..(27)
 <223> Kozak sequence
 <220>
 <221> misc feature
 <222> (25)..(97)
 <223> cds natural signal sequence of human serum albumin
 <220>
 <221> misc_feature
 <222> (75)..(81)
 <223> XhoI restriction site
 <221> misc_feature
 <222> (98)..(114)
 <223> cds first six amino acids of human serum albumin
 <400> 30
 tcagggatcc aagcttccgc caccatgaag tgggtaacct ttatttccct tcttttctc 60
 tttagctcgg cttactcgag gggtgtgttt cgtcgagatg cacacaaqaq tqaq
 <210> 31
 <211> 43
 <212> DNA
 <213> Artificial Sequence
```

U.S. Patent No. 6,905,688

```
<220>
<221> primer bind
<223> reverse primer useful for generation of
PC4:HSA albumin fusion VECTOR
<220>
<221> misc feature
<222> (6) . (11)
<223> Asp718 restriction site
<220>
<221> misc_feature
<222> (12)..(17)
<223> EcoRI restriction site
<220>
<221> misc feature
<222> (15)..(17)
<223> reverse complement of stop codon
<221> misc_feature
<222> (18) .. (25)
<223> AscI restriction site
<220>
<221> misc_feature
<222> (18) . . (43)
<223> reverse complement of DNA sequence encoding last 9 amino acids
<400> 31
gcagcggtac cgaattcggc gcgccttata agcctaaggc agc
<210> 32
<211> 46
<212> DNA
<213> Artificial Sequence
<220>
<221> primer bind
<223> forward primer useful for inserting Therapeutic
protein into pC4:HSA vector
<220>
<221> misc feature
<222> (29)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c
<220>
<221> misc feature
```

U.S. Patent No. 6,905,688

```
<222> (31)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (32)
 <223> n equals a,t,g, or c
<221> misc feature
 <222> (33)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (34)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (35)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (36)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (42)
<223> n equals a,t,q, or c
```

U.S. Patent No. 6,905,688

```
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (44)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,q, or c
<400> 32
ccgccgctcg aggggtgtgt ttcgtcgann nnnnnnnnn nnnnnn
                                                                    46
<210> 33
<211> 55
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<223> reverse primer useful for inserting Therapeutic
protein into pC4:HSA vector
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (39)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (42)
```

U.S. Patent No. 6,905,688

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (44)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (47)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (49)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (51)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (52)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (53)
<223> n equals a,t,q, or c
```

U.S. Patent No. 6,905,688

```
<220>
 <221> misc feature
 <222> (54)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (55)
 <223> n equals a,t,g, or c
 <400> 33
agtoccatcg atgagcaacc teactettgt gtgcatennn nnnnnnnnnn nnnnn
<210> 34
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<221> signal
<223> Stanniocalcin signal peptide
<400> 34
Met Leu Gln Asn Ser Ala Val Leu Leu Leu Leu Val Ile Ser Ala Ser
  1
                                      10
Ala
<210> 35
<211> 22
<212> PRT
<213> Artificial Sequence
<221> signal
<223> Synthetic signal peptide
<400 > 35
Met Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala Leu
Trp Ala Pro Ala Arg Gly
             20
<210> 36
<211> 733
<212> DNA
<213> Homo sapiens
<400> 36
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
                                                                       60
aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
teteceggae teetgaggte acatgegtgg tggtggaegt aagecaegaa gaeeetgagg
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                      240
```

U.S. Patent No. 6,905,688

```
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
                                                                             300
       ggctgaatgg caaggagtac aagtgcaagg totocaacaa agccotocca acccocateg
                                                                             360
       agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                             420
       catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
                                                                             480
       atccaagega categeegtg gagtgggaga geaatgggea geeggagaac aactacaaga
                                                                             540
       ecacgcetec egtgetggae teegaegget cettetteet etacageaag eteacegtgg
                                                                             600
       acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                             660
       acaaccacta cacgcagaag agceteteee tgteteeggg taaatgagtg egaeggeege
       gactctagag gat
                                                                             733
       <210> 37
       <211> 5
       <212> PRT
       <213> Artificial sequence
       <221> misc_structure
      <223> membrane proximal motif of class 1 cytokine receptors
      <220>
       <221> misc_feature
      <222> (3)
       <223> Xaa equals any
      <400> 37
      Trp Ser Xaa Trp Ser
      <210> 38
      <211> 86
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> forward primer useful for generation of a synthetic gamma activation site
(GAS) containing promoter element
      <400> 38
      gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc
                                                                              60
      cccgaaatat ctqccatctc aattaq
                                                                              86
      <210> 39
      <211> 27
      <212> DNA
```

U.S. Patent No. 6,905,688

```
<213> Artificial Sequence
      <220>
      <221> primer_bind
      <223> reverse primer useful for generation of a synthetic gamma activation site
(GAS) containing promoter element
      <400> 39
      gcggcaagct ttttgcaaag cctaggc
                                                                                    27
      <210> 40
      <211> 271
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> misc feature
      <223> Synthetic GAS-SV40 promoter sequence
      <400> 40
     ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
      aaatatetge cateteaatt agteageaac catagteeeg eecetaaete egeeeateee
                                                                            120
      gecectaact cegeceagtt cegeceatte teegececat ggetgactaa tttttttat
                                                                            180
     ttatgcagag gccgaggccg cctcqqcctc tqaqctattc caqaaqtaqt qaqqaqqctt
     ttttggaggc ctaggctttt gcaaaaagct t
                                                                            271
     <210> 41
     <211> 32
     <212> DNA
     <213> Artificial Sequence
     <220>
     <221> primer bind
     <223> primer useful for generation of a EGR/SEAP reporter construct
     <400> 41
     gcgctcgagg gatgacagcg atagaacccc gg
                                                                             32
     <210> 42
     <211> 31
     <212> DNA
     <213> Artificial Sequence
     <221> primer_bind
     <223> primer useful for generation of a EGR/SEAP reporter construct
     <400> 42
     gcgaagette gcgaeteece ggateegeet e
                                                                           31
     <210> 43
     <211> 12
     <212> DNA
```

U.S. Patent No. 6,905,688

```
<213> Artificial Sequence
      <220>
      <221> misc binding
      <223> NF-KB binding site
      <400> 43
      ggggactttc cc
                                                                            12
      <210> 44
      <211> 73
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> primer bind
      <223> forward primer useful for generation of a vector containing the NF-KB
promoter element
      <400> 44
      gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg
      ccatctcaat tag
                                                                            73
      <210> 45
      <211> 256
      <212> DNA
      <213> Artificial Sequence
      <220>
      <221> misc feature
      <223> Synthetic NF-KB/SV40 promoter
      <400> 45
      ctcgagggga ctttcccggg gactttccg ggactttccq qqactttcca tctqccatct
      caattagtca gcaaccatag teeegeeet aacteegeee ateeegeee taacteegee
                                                                            120
      cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga
                                                                            180
      ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg
                                                                            240
     cttttgcaaa aagctt
                                                                            256
```

U.S. Patent No. 6,905,688

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 901 New York Avenue, N.W. Washington, D.C. 20001-4413

AR 9 LUUC